

CLAIM AMENDMENTS

Claim 1.

Cancel claim 1.

Claim 2.

Line 1, after "claim", delete "1", and insert -22-.

Claim 3.

Cancel claim 3.

Claim 4.

Line 1, after "claim", delete "3", and insert -22-.

Claim 5.

Line 1, after "claim", delete "3", and insert -22-.

Claim 6.

Line 1, after "claim", delete "3", and insert -22-.

Claim 7.

Line 1, after "claim", delete "3", and insert -22-.

Claim 8.

Line 1, after "claim", delete "1", and insert -22-.

Claim 8.

Line 1, after "claim", delete "1", and insert -22-.

Claim 9.

Line 1, after "claim", delete "1", and insert -22-.

Claim 10.

Line 1, after "claim" delete "1", and insert -22-.

Line 2, after "electrolyte", delete "is", and insert

-has a-, after "boiling", insert -temperature-, after

"and", insert -is-.

Claim 11.

Cancel claim 11.

Claim 12.

Line 1, after "claim", delete "3 and 11", and insert -22-.

Line 4, delete "electrodes'", and insert -electrode-.

Claim 13.

Line 1, after "claim", delete "1", and insert -22-.

Claim 14.

Line 1, after "claim", delete "1", and insert -22-.

Claim 15.

Line 1, after "claim", delete "1", and insert -22-.

Claim 16.

Line 1, after "claim", delete "1", and insert -22-.

Claim 17.

Line 1, after "claim", delete "1", and insert -22-.

Line 2, after "one", delete "electrode", and insert -of
said electrodes-.

Claim 18.

Cancel claim 18.

Claim 19.

Cancel claim 19.

Claim 20.

Line 1, after "claim", delete "1", and insert -22-.

Claim 21.

Line 1, after "claim", delete "1", and insert -22-.

Claim 22.

Add new claim 22.

Claim 23.

Add new claim 23.

Claim 24.

Add new claim 24.

CLAIMS

Claim 1. (Cancelled).

Claim 2. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said electrodes are an anode and a cathode.

Claim 3. (Cancelled).

Claim 4. (Currently amended).

An electrochemical device as defined in claim 3 22, in which said particles are alpha alumina particles.

Claim 5. (Currently amended).

An electrochemical device as defined in claim 3 22, in which said particles are inorganic lithium fluoride particles.

Claim 6. (Currently amended).

An electrochemical device as defined in claim 3 22, in which said particles are inorganic fluoride particles.

Claim 7. (Currently amended).

An electrochemical device as defined in claim 3 22, in which said particles are a mixture of inorganic fluoride and alumina particles.

Claim 8. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said adhesive is PVDF/HFP copolymer based and contains at least one aprotic liquid and at least one salt.

Claim 9. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said adhesive is PVDF homopolymer based and contains at least one aprotic liquid and at least one salt.

Claim 10. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said electrolyte is has a high boiling temperature and is essentially non-flammable.

Claim 11. (Cancelled).

Claim 12. (Currently amended).

An electrochemical device as defined in claim 3 and 11 22, in which said separator binder is of a different polymer than said electrodes' electrode binders, and uses a different solvent.

Claim 13. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said device is a bi-cell.

Claim 14 (Currently amended).

An electrochemical device as defined in claim 1 22, in which said device is a capacitor.

Claim 15. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said device is a supercapacitor.

Claim 16. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said device is a double layer capacitor.

Claim 17. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said at least one electrode of said electrodes is smaller than said separator.

Claim 18. (Cancelled)

Claim 19. (Cancelled).

Claim 20. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said separator is coated with an adhesive which is a mixture of dimethoxyethane in the range of 40% to 95% by percentage weight, polyvinylidene fluoride/hexafluoropropylene in the range of 5% to 20% by percentage weight, and a lithium based electrolyte in the range of 10% to 45% by percentage weight.

Claim 21. (Currently amended).

An electrochemical device as defined in claim 1 22, in which said separator is coated with an adhesive which is a mixture of polyvinylidene fluoride in the range of 5% to 50% by percentage weight, and/or a lithium based electrolyte in the range of 50% to 95% by percentage weight.

Claim 22. (New).

A lithium based electrochemical device comprising at least a first and a second porous electrode, said electrodes each include expanded metal microgrids with active materials including a binder coated thereon, at least one porous ceramic separator between said electrodes, said separator containing particles of an electrically insulating material and a binder, said separator having one side in bonding contact with said first electrode active material, an organic ion-conductive adhesive layer on the other side of said separator in adherent contact with said separator and said second electrode, a non-aqueous electrolyte in contact with said electrodes, and said separator, and a moisture proof enclosure surrounding and containing said device, with exiting sealed terminals extending therefrom.

Claim 23. (New).

An electrochemical device as defined in claim 22 in which said separator comprises a ceramic slurry, which is coated onto said first electrode active surface, and solidified and immobilized by solvent extraction, said slurry including a mixture of methylpyrrolidinone in

the range of 40% to 60% by percentage weight, polyvinylidene fluoride in the range of 2% to 10% by percentage weight, and alpha alumina in the range of 25% to 75% by percentage weight.

Claim 24. (New).

An electrochemical device as defined in claim 22, in which said separator comprises a ceramic slurry, which is coated onto said first electrode active surface, and solidified and immobilized by solvent extraction, said slurry including a mixture of H₂O in the range of 40% to 60% by percentage weight, polyvinyl alcohol in the range of 2% to 10% by percentage weight, and lithium fluoride in the range of 25% to 74% by percentage weight.